

***Complete Listing of the Claims***

**Claims 1-25 (cancelled)**

Claim 26 (previously presented): A method of producing an Avian Myeloblastosis Virus (AMV) reverse transcriptase having an RNA dependent DNA polymerase specific activity of at least about 30,000 units per milligram, said method comprising

- (a) obtaining a eukaryotic host cell comprising one or more nucleic acid sequences encoding an AMV reverse transcriptase  $\alpha$  subunit and one or more nucleic acid sequences encoding an AMV reverse transcriptase  $\beta$  subunit; and
- (b) culturing said host cell under conditions sufficient to produce said AMV reverse transcriptase; and
- (c) isolating or purifying said reverse transcriptase thereby obtaining an AMV reverse transcriptase having an RNA-dependent DNA polymerase specific activity of at least about 30,000 units per milligram.

**Claims 27-32 (cancelled)**

Claim 33 (previously presented): The method of claim 26, wherein subunits of said AMV reverse transcriptase are expressed in said host cell to form said AMV reverse transcriptase.

**Claims 34-116 (cancelled)**

Claim 117 (previously presented): The method of claim 26, wherein said nucleic acid sequences are contained in one or more vectors.

Claims 118-121 (cancelled)

Claim 122 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase comprises two  $\beta$  subunits.

Claim 123 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase comprises an  $\alpha$  and a  $\beta$  subunit.

Claim 124 (previously presented): The method of claim 117, wherein said nucleic acid sequences are contained on the same vector.

Claim 125 (previously presented): The method of claim 117, wherein said nucleic acid sequences are contained on different vectors.

Claim 126-136 (cancelled)

Claim 137 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity from about 80,000 units per milligram to about 150,000 units per milligram.

Claim 138 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 35,000 units per milligram.

Claim 139 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 40,000 units per milligram.

Claim 140 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 45,000 units per milligram.

Claim 141 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 50,000 units per milligram.

Claim 142 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 55,000 units per milligram.

Claim 143 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 60,000 units per milligram.

Claim 144 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 65,000 units per milligram.

Claim 145 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 70,000 units per milligram.

Claim 146 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 75,000 units per milligram.

Claim 147 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of at least about 80,000 units per milligram.

Claim 148 (cancelled)

Claim 149 (previously presented): The method of claim 26, wherein said host cell is a cultured insect cell.

Claim 150 (previously presented): The method of claim 26, wherein said host cell is an insect larva cell.

Claim 151 (previously presented): The method of claim 26, wherein said host cell is a yeast cell.

Claim 152 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 35,000 units per milligram.

Claim 153 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 40,000 units per milligram.

Claim 154 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 45,000 units per milligram.

Claim 155 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 50,000 units per milligram.

Claim 156 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 55,000 units per milligram.

Claim 157 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 60,000 units per milligram.

Claim 158 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 65,000 units per milligram.

Claim 159 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 70,000 units per milligram.

Claim 160 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 75,000 units per milligram.

Claim 161 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has an RNA-dependent DNA polymerase specific activity of about 80,000 units per milligram.